

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AT MD 177 AND THE ENTRANCE TO THE MOUNTAIN MARKET PLACE SHOPPING CENTER IN ANNE ARUNDEL COUNTY. MD 177 WILL BE WIDENED ALONG THE NORTH SIDE TO PROVIDE ACCELERATION AND DECELERATION LANES. MD 177 IS ASSUMED TO RUN IN AN EAST - WEST DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE/PERMISSIVE LEFT-TURN PHASING FOR EASTBOUND TRAFFIC. AN OVERLAP FOR SOUTHBOUND RIGHT-TURNING TRAFFIC AND MD 177 APPROACHES RUNNING CONCURRENTLY.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO (2) FOUR-CHANNEL, TIME-DELAY OUTPUT LOOP DETECTOR AMPLIFIERS, PHONE DROP, AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE-MOUNTED CABINET.

GENERAL

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE DROP LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

The contact persons for District #5 are as follows:

Mr. Paul Armstrong
District Engineer
Phone: 410-841-1001

Mr. Larry Elliott
Assistant District Engineer - Traffic
Phone: 410-841-1003

Mr. John Mays
Utilities Engineer
Phone: 410-841-1005

Mr. Charles George
Assistant District Engineer - Maintenance
Phone: 410-841-1002

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

The Power Company Representative is:
Baltimore Gas & Electric Company
Mr. Court Herschelman
7317 Parkway Drive South
Hanover, Maryland 21076
Phone: 410-855-6942

EQUIPMENT LIST 'A'

APPROVED SHA EQUIPMENT TO BE PURCHASED BY THE DEVELOPER AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	SPECIFICATION SECTION	DESCRIPTION
2 EACH	816	FOUR-CHANNEL LOOP DETECTOR AMPLIFIER
1 EACH	816	CONTROLLER ASC IIW/ TELEMETRY
1 EACH	816	CABINET INTERSECTION MONITOR, SIZE 6
10.5 S.F.	813	R10-12 SIGN (36 IN X 42 IN) MAST ARM MOUNT
26 S.F.	813	W3-3 SIGN (36 IN X 36 IN) AND D95-25 SIGN (24 IN X 24 IN) WITH ADVISORY FLAGS GROUND MOUNT
15 S.F.	813	R3-5L AND R3-5R SIGNS (30 IN X 36 IN) MAST ARM MOUNT
16 S.F.	813	M95-1 SIGN (24 IN X 96 IN) GROUND MOUNT

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

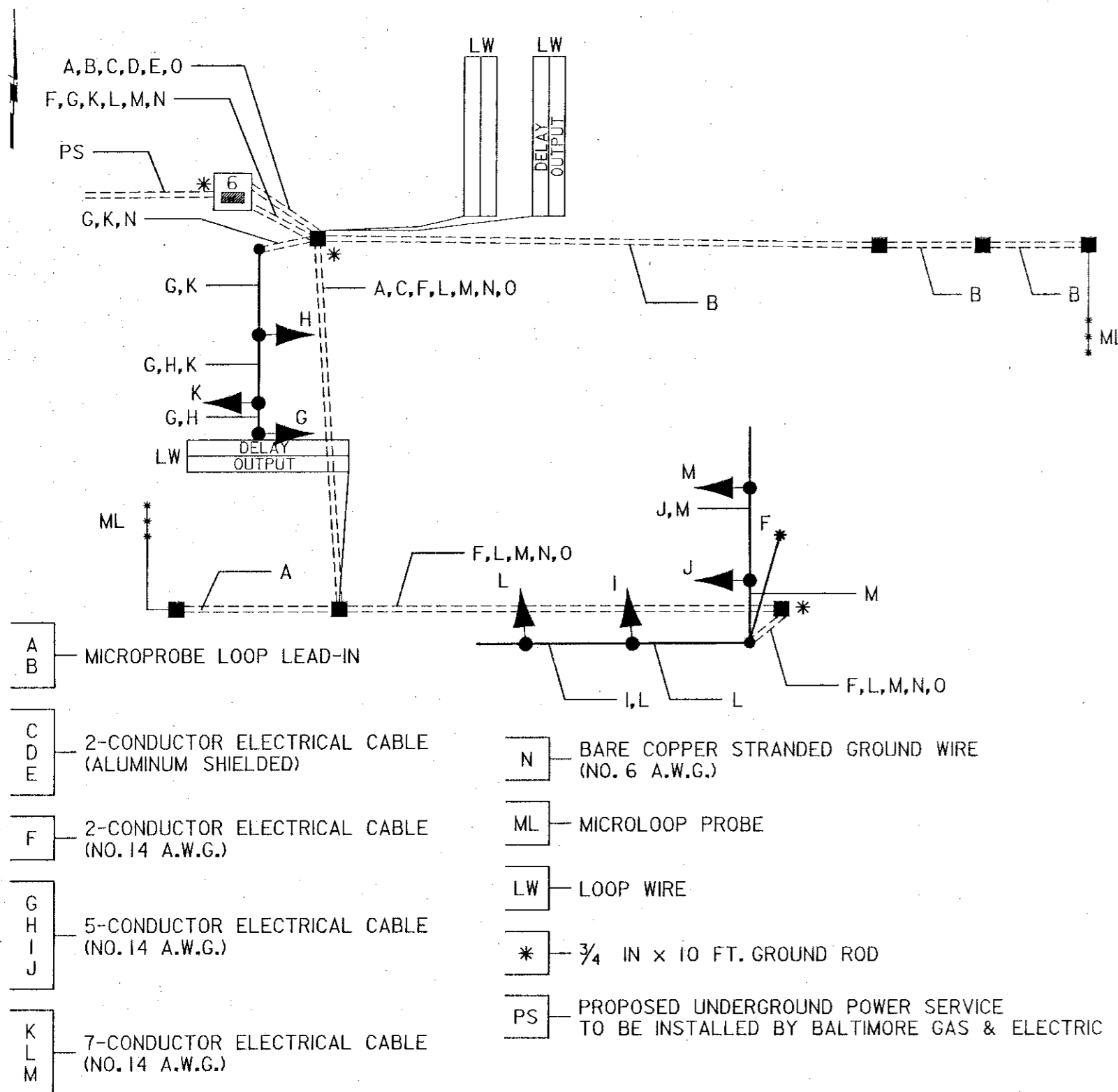
QUANTITY	SPECIFICATION SECTION	DESCRIPTION
LUMP SUM	104	MAINTENANCE OF TRAFFIC FOR TRAFFIC SIGNAL CONSTRUCTION
LUMP SUM	108	MOBILIZATION FOR TRAFFIC SIGNAL CONSTRUCTION
2 C.Y.	205	TEST PIT EXCAVATION
85 L.F.	556	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED PERMANENT PREFORMED PAVEMENT MARKING (FOR STOP LINE)
LUMP SUM	712	SELECTIVE TREE TRIMMING
10 C.Y.	801	FURNISH AND INSTALL CONCRETE FOR SIGNAL POLE FOUNDATION
3 EACH	804	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
225 L.F.	804	FURNISH AND INSTALL NO. 6 A.W.G. STRANDED BARE COPPER GROUND WIRE
70 L.F.	805	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - SLOTTED
125 L.F.	805	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
490 L.F.	805	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
155 L.F.	805	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
40 L.F.	805	FURNISH AND INSTALL 1 IN. LIQUID-TIGHT NON-METALLIC ELECTRICAL CONDUIT FOR DETECTOR SLEEVE
1 EACH	806	FURNISH AND INSTALL 250 WATT HPS LAMP AND LUMINAIRE WITH PHOTOCELL
1 EACH	806	FURNISH AND INSTALL 20-FOOT LIGHTING ARM FOR TRAFFIC SIGNAL STRUCTURE
1 EACH	807	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
150 L.F.	810	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
75 L.F.	810	FURNISH AND INSTALL ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 A.W.G.)

EQUIPMENT LIST 'B' (CONTINUED)

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR. ALL EQUIPMENT IN THIS LIST SHALL HAVE CATALOG CUTS SUBMITTED FOR APPROVAL PRIOR TO INSTALLATION.

QUANTITY	SPECIFICATION SECTION	DESCRIPTION
725 L.F.	810	FURNISH AND INSTALL ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 A.W.G.)
250 L.F.	810	FURNISH AND INSTALL ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 A.W.G.)
825 L.F.	810	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
7 EACH	811	FURNISH AND INSTALL ELECTRICAL HANDHOLE
62 L.F.	812	FURNISH AND INSTALL 4 IN. X 6 IN. WOOD SIGN SUPPORTS
22 EACH	814	FURNISH AND INSTALL 12 IN. VEHICULAR TRAFFIC SIGNAL HEAD
3 EACH	814	FURNISH AND INSTALL 8 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
520 L.F.	815	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
1 EACH	818	FURNISH AND INSTALL 27' STEEL POLE WITH TWIN 50 FT. MAST ARMS
1 EACH	818	FURNISH AND INSTALL 27' STEEL POLE WITH SINGLE 50' MAST ARM
1 EACH	- - -	CUT, CLEAN AND CAP MAST ARM
1 EACH	- - -	CUT, CLEAN AND CAP MAST ARM POLE
2 EACH	- - -	FURNISH AND INSTALL MICROLOOP PROBE SET AND 1000 FOOT LEAD-IN

WIRING DIAGRAM



PHASE CHART

	1	2	3	4	5	6	7	
PHASE 1 + 6			G	R	R	R	R	
PHASE 1 + 6 CHANGE			G	R	R	R	R	
PHASE 2 + 6	G	G	G	G	G	R	R	
PHASE 2 + 6 CHANGE	Y	Y	Y	Y	Y	R	R	
PHASE 4	R	R	R	R	R	G	G	
PHASE 4 CHANGE	R	R	R	R	R	Y	Y	
FLASHING OPERATION	FL/Y	FL/Y	FL/Y	FL/Y	FL/Y	FL/R	FL/R	
PRE-EMPT PHASE			G	R	R	R	R	

